

WHAT IS CLAIMED IS:

1. A microimpactor system comprising a fluid conduit having a plurality of rows of microimpactors arranged in the fluid conduit substantially transverse to a main direction of flow of fluid through the fluid conduit, wherein the spacing between adjacent microimpactors within a row is from about 3 to about 20 times the microimpactor width, and the spacing between adjacent rows of microimpactors is from about 3 to about 20 times the microimpactor width.
- 10 2. The microimpactor system of claim 1, wherein microimpactors in at least two successive rows are offset from each other.
3. The microimpactor system of claim 1, wherein the fluid conduit includes a fluid inlet and a fluid outlet.
- 15 4. The microimpactor system of claim 1, wherein the microimpactor system further comprises a means for moving fluid through the system.
5. The microimpactor system of claim 1, further comprising means for applying 20 an electrical charge to at least one microimpactor.
6. The microimpactor system of claim 1, wherein the microimpactor width is from about 10 to about 100 microns.
- 25 7. The microimpactor system of claim 6, wherein the spacing between adjacent microimpactors within a row is from about 3 to about 10 times the microimpactor width.
8. The microimpactor system of claim 7, wherein the spacing between adjacent 30 rows of microimpactors is from about 3 to about 10 times the microimpactor width.

9. The microimpactor system of claim 8, wherein the spacing between adjacent microimpactors within a row is from about 5 to about 8 times the microimpactor width.
- 5 10. The microimpactor system of claim 9, wherein the spacing between adjacent rows of microimpactors is from about 3 to about 10 times the microimpactor width.